

CHARTS  
FLOW PLANS  
PAINT NUMBERED  
TREES

PERMANENT  
SAMPLES  
TIMBER  
BOOKKEEPING

UNIT  
RECORDS

THE DIAMETER  
TAPE

TRIAL  
BALANCE

PORT-A-  
PUNCH

# FOREST CONTROL

A  
B.2.  
In 81  
143

## by CONTINUOUS INVENTORY

"Today I have grown taller from walking  
with the trees."

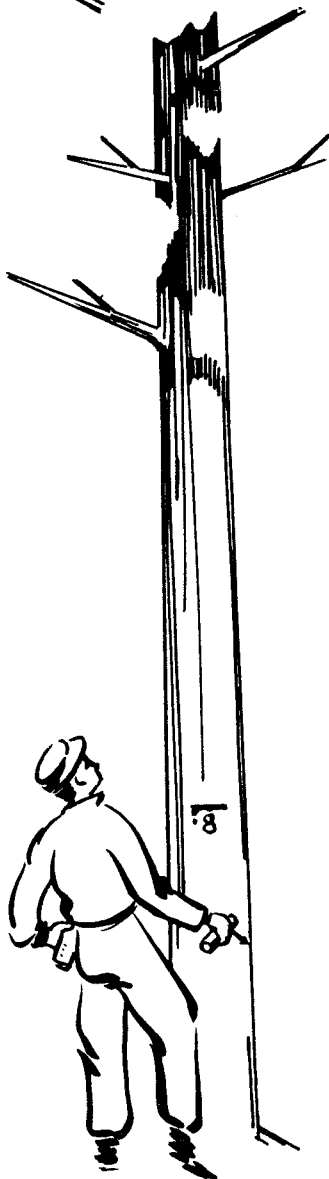
...Karle Wilson

Upper Darby, Pa. June, 1966 No. 143

Monthly from April 1954 through December 1965, edited and often written by Cal Stott, this CFI newsletter has been sent out from the U. S. Forest Service North Central Regional Office at Milwaukee, Wisconsin. Cal has retired from the Forest Service, but not from CFI. The newsletter will continue to be issued with its point of origin the U. S. Forest Service Northeastern Area, State and Private Forestry, Upper Darby, Pennsylvania. When he can find time to write within a busy schedule he has set up for himself, Cal will contribute material for the newsletter.

You may have noticed a little slippage in the newsletter's regularity. This has been due partly to Cal's retirement, but to a greater extent to a major reorganization of State and Private Forestry work in Eastern U.S.A. Two large AREAS for State and Private Forestry were created. East of the great plains States and North of Arkansas, Kentucky and Virginia is the 20 State NORTHEASTERN AREA, S. & P.F. The Southeastern States West to and including Texas and Oklahoma comprise the 13 State SOUTHEASTERN AREA, S. & P.F., with headquarters in Atlanta, Georgia.

The newsletter should be back on a regular schedule soon. We thought that at this time you might like to have a complete index to the past issues. Such a list is enclosed. Should you discover a few issues you are missing that seem to contain information important to you, please let us know. There may still be a copy from the original printing. If there is not, a photo copy for you can probably be made from the master file.



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C F I

N E W S L E T T E R

I N D E X

INDEX OF NEWSLETTERS BY TOPIC, NUMBER AND MONTH

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
1	April, 1954	Introductory letter.
2	May, 1954	Forest trial balance.  Distribution of Continuous Forest Control booklet (green).
3	June, 1954	Unit Records - Flow Planning.  Chart attached - Daily Diameter Tape Growth Record.
4	July, 1954	General letter - Individual tree measurement techniques.
5	August, 1954	Distribution of mailing list.  Flow Charts for Continuous Inventory.
6	September, 1954	Old and new formulas on individual tree volume.  Board foot volume formula (for I.B.M. computing attached).
7	October, 1954	Remeasurement of plots.  Natural Selection - A Sound Foundation for Silvicultural Practice
8	November, 1954	Brief review of "Planning and Control in the Managed Forest" by Herman Knuchel.
9	December, 1954	Visiting Nekoosa Paper Company and Menominee Indian Mills to see demonstration areas.  Hundeshagen's Lament.
10	January, 1955	Reprint of Dr. Knuchel's letter, from Switzerland.

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
11	February, 1955	More exact measure of the volume and growth of the individual tree.  New Short Formula and Old Long Formula.
12	March, 1955	Cordwood Volume Table and Formulae for I.B.M. Computing. (Cordwood Volume Table attached).
13	April, 1955	Final plans for visiting Nekoosa-Edwards and Menominee Indian Mills.  Letter from R. Belcher to F. A. Harrison of Montreal, Canada, re: progress of C.F.I. control work at Causapscal Research Station.
14	May, 1955	Report on C.F.I. tour to Nekoosa and Menominee Indian Mills.  Paper attached - "What We Need is a More Business-like Management of the Forest".
15	June, 1955	C.F.I. time table in Lake and Central States.  Establishment of permanent plots by crews.  C.F.I. Empirical Sampling Guide - I.B.M.
16	July, 1955	Effect of forest fires of the southland to plot centers, tree numbers, tags.  New mailing list distributed.
17	August, 1955	Controlling and checking I.B.M. inventory calculations.  Desirable checks on machine work.  How Much Tolerance?
18	September, 1955	Explaining the Meaning of the FLOW CHART.  A Simple Sample Flow Chart attached.

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
19	October, 1955	Timber Operability Classes. Table - Timber Stand Operability Factors.
20	November, 1955	A Concise Compendium of Costs.
21	December, 1955	T. Fred Baker's Tool, or J. Frederick Werner's Hypsodrometer.
22	January, 1956	"Is This the Heaviest Plot?" "Let's Keep Working in the New Year"
23	February, 1956	A Slope Radius Gauge for Side Hill Plots.
24	March, 1956	Purposes - Policies - Principles - Practices.
25	April, 1956	The Timber Cruisers Apron.
26	May, 1956	The Four Great Gateways to Intensive Forestry Are Now Ajar. The Spruce-Balsam Fir Soundness Chart. Chart 1 - Tree Soundness for Direct Field Use.
27	June, 1956	Diameter Tape Tricks.
28	July, 1956	With Thanks and In Appreciation - A Fanciful Tale of the EWEPP and the CEMMM. Table of Reciprocals of Numbers.
29	August, 1956	Drawing, "How to Keep Tally and I.B.M. Cards Dry". News about different companies' plots.

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
30	September, 1956	Articles on C.F.I. (Muskingum Watershed, Battelle, "Tractor Bombardier", Remington-Rand C.F.I. with Cards Hand-Punched in the Woods.  Article "Effective Forest Inventory" by Wm. C. Finley.
31	October, 1956	The Importance of Testing the Accuracy of Forest Inventories.
32	November, 1956	More Testing - Less Talking.  Principles of Statistical Analysis, by Bill Barton.
33	December, 1956	Problems of Remeasurement Under a Continuous Inventory System.  Article by F. T. Frederickson of M&O Paper Company.
34	January, 1957	The More We Flail and Flounder - The More We Founder and Fail.  The Statistical Check Sheet.  How to Determine Number of Sample Plots needed to Make a Total Volume.  How to List the Sample Plot Information.
35	February, 1957	To Grow as Tall as Abraham Lincoln - Short Articles - "From the Lectern" "Can't Marksense?" - "Univac Goes to Work for the Forester" - "Mando Calculates the Standard Error at Time of First Remeasurement", etc.
36	March, 1957	From the Past. In the Present.  The Flow Chart Forces Detailed Planning.  Flow Chart and Formula for Calculating Limit of Error.  Hand Calculated Example of Formula and Stone's Wood Computing Summary Card Layout.

<u>Number</u>	<u>Month- Year</u>	<u>Title</u>
37	April, 1957	For the Good of the Woods. In Support of the Timber Cruiser. Drawing of Transparent Aerial Photograph Holder.
38	May, 1957	Summary Statement covering C.F.I. Controls with Punch Card Accounting.
39	June, 1957	"Intensive Forestry Pays" by John Aughanbaugh, Ohio Agricultural Experiment Station. Chart - Growing Stock in Sanor's Woods. "CFI Short Course Held at Michigan Tech Ford Center" by Eric Bourdo.
40	July, 1957	Punched Cards are Cornerstones. It Makes Sense to Mark Sense. Cards attached.
41	August, 1957	What is a Big Tree Good For: John Hubbard's letter to Donald R. Hopkins, Olympia, Wash. Poster attached - "Mrs. Cottonwood's Case History".
42	September, 1957	"Suspect Believed from Minnesota" (Semmens). Bill Barton and I Work in New England. Brown Co. Berlin, N. H. Burns Midnight Oil on CFI Feasibility First Visit to Pack Forest at Warrensburg, N.Y. We Tour IBM Plant and Visit School at Endicott, New York. Two Pleasant Days at Phillips Brook Conservation Project of International Paper Co. Yale Forest School Librarian Binds CFI Newsletters "For the Boys".

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
43	October, 1957	Wanna Buy a Deck?  C.F.I. on Stone's Woods, Wisconsin - Poster, "COWS MAKE POOR FORESTERS".
44	November, 1957	Letter to Joe Paplinski.  Notice of Stone's Woods C.F.I. decks.
45	December, 1957	IS C.F.I. NEEDED ON PUBLIC LANDS?  Problems created by constantly changing personnel in management of public forest lands.
46	January, 1958	Trees, Markets and Foresters.
47	February, 1958	CFI Accomplishments in 1957.  Dictaphone "Dictet".
48	March, 1958	Retrospection - C.F.I. with I.B.M. Mark Sensing.  Natural Selection - Sound Foundation for Silvicultural Practice.
49	April, 1958	Flow Chart Sessions - Experimenting with new Port-A-Punch.
50	May, 1958	Trees Grow to Maturity and If not Used Decline and Die - By John Hubbard, M&O  6 charts & CFI Work Schedule for Stott and Semmens - July thru Dec. 1958.
51	June, 1958	Using Tomorrow's Methods Today.  Measuring Tree Boles with Measuring Poles (Bamboo Measuring Poles on Small and Large Trees -Sketches).
52	July, 1958	It is not half so much fun to correct mistakes as it must be to make them.



<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
52 (cont'd)	July, 1958	Locating C.F.I. plots - Setting plot centers - Moving plot center points.
53	August, 1958	"Sausage and Mash". Using the Plot Tape. Establishing the Sequence within the Plot. Preparing the Paint and Making the Paint Numbers.
54	September, 1958	Formulas and Convertors for Punch Card Computing Industrial C.F.I. Cases.
55	October, 1958	Volume Table Construction by Residual Volume Process. Explanation of Development of Residual Volume Table. Steps in Construction of New Cubic Foot Volume Table. Factors and Base Values in Cubic Foot Volume Table Construction by the Residual Volume Process. Formula for Machine Computation etc.
56	November, 1958	Converting Ratios, International to Scribner Log Scale. Board Foot Volume Factors, International Log Scale, (for punch card computing, Sept. 1954). Ratios for Converting Individual Tree Volumes from International to Scribner Scale.
57	December, 1958	Foresters are doing a fine job accepting and applying punch card accounting. Machine is fast, gives detail, is accurate, gives clarity, etc.

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
58	January, 1959	CFI Accomplishments in 1958.  PORT-A-PUNCH job a success.  CFI Work Schedule - January thru June, '59 Port-A-Punch Card.
59	February, 1959	Continuous Forest Inventory Continues to Grow.  CFI News Items.
60	March, 1959	Desiderata - Formulas and Factors for Computing the Cubic Foot Volume of Limbwood in Individual Trees.
61	April, 1959	A Fantasy - Perhaps.  The Tree Growth Potential Classes - A New Tree Grading Concept by George Semmens of Region 9.
62	May, 1959	Arbor Day, 1959 - Excerpt from Panel at First Annual Meeting of Washington Section of S.A.F. Washington D. C. (Industrial CFI - What it is, what it does, and how it does it).
63	June, 1959	The Accomplishments of Ten Years - Speed, Time, Continuity, Common Sense and the CFI Short Course at University of Georgia.
64	July, 1959	Forests and People by Boris Pasternak.  Calculation and testing of certain body and topwood converting factors.  CONVERTING FACTORS FOR DETERMINING THE NET CUBIC FOOT VOLUME OF TOPWOOD IN SAWTIMBER TREES.  Graphic Comparison of Gross Computed Volumes Using 3 Different Methods. (Stones Woods, Wis. (June, 1958)).

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
65	August, 1959	<p>More Proof of the Pudding - From Minnesota &amp; Ontario Paper Company Exp. Forest.</p> <p>Standard Species Correction Factors in Cubic Feet, Standard Cords, Board Feet.</p> <p>Calculated Example of Application of Species Correction Factors.</p>
66	September, 1959	<p>"Research" by Charles Kettering.</p> <p>Sounding or Womping - Which?</p> <p>How to Sound Trees for Rot.</p> <p>Priority Listing of Trees Species.</p> <p>Axe drawn to actual scale.</p>
67	October, 1959	<p>Waste Not - Want Not.</p> <p>There is Much to Learn about Cull in Standing Timber.</p> <p>Special Considerations in Cull Deduction.</p> <p>Tree Soundness Problems Nos. 1, 2 3.</p> <p>Technical Notes No. 347 (Reprint 1959).</p> <p>Station Paper No. 3 - Estimating Cull in Northern Hardwoods, 1946.</p>
68	November, 1959	<p>Accomplishment Plans are Important.</p> <p>Review of work plan by Forester Newman Bergh, of Celotex - (Celotex Cumulative Plot Record).</p> <p>CFI Leaflet.</p> <p>Flyer on Forest Management Control Conference at Purdue in February, 1960.</p>
69	December, 1959	<p>1859 - 1959 - 2059 - Excerpt from "Old Wives Tale" by Arnold Bennett.</p> <p>LET'S BE FRANK IN THE INTEREST OF PROGRESS.</p>

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
69 (Cont'd)	December 1959	USING THE DIAMETER TAPE - Illustrated.  <u>BARTON'S STATISTICAL PROCEDURE</u> <u>LEAFLET NO. 1.</u>
70	January, 1960	PRIMING THE OLD PUMP - CFI NEWS ITEMS.  <u>BARTON'S STATISTICAL PROCEDURE LEAFLET #2</u>  Forestry Management Control Conference - Purdue University (Leaflet).
71	February, 1960	Talk by Stott at PURDUE UNIVERSITY SEMINAR, (in two parts) - "Tree Records are Only as Good as the Techniques Used in Making Them:  "Errors of Judgment, of Theory, Technique, in Problems, Problem of Determining Tree Lengths", etc.  Practical Field Guides to True Tree Lengths - Taking Length of Pulpwood Trees and Sawlog Trees,  Attachments - Card, (two sides) Simple Guide to Usable Lengths of Trees (Other side) Guide to Top Diameters of Logs in Standing Sawlog Trees.  Two attachments - full length sheets, same information as on card.  <u>BARTON'S STATISTICAL PROCEDURE LEAFLET #3</u>
72	March, 1960	The Power to Produce.  The Port-a-Punch Card and Layout Techniques.  Sheet showing Typical Port-a-Punch Card Layout.  <u>BARTON'S STATISTICAL PROCEDURE LEAFLET #4</u>
73	April, 1960	The Evolutionary Vision - by Sir Julian Huxley.  THE BLOCK GRID, (with example)

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
73(Cont'd)	April, 1960	<p>Example of Build-up of Sampling Intensity using the Block Grid.</p> <p>Advantages of Grid. Attached Grid.</p> <p><u>STATISTICAL PROCEDURE LEAFLET #5</u></p>
74	May, 1960	<p>Forest Mgt. in Switzerland, The Check Method - by Professor Herman Knuchel.</p> <p>Will We Grow Enough Timber to Meet Our Future Needs? by CB Stott,</p> <p><u>Revised STATISTICAL PROCEDURE #4</u></p> <p><u>STATISTICAL PROCEDURE LEAFLET #6</u></p> <p>A Method of Continuous Forest Inventory for Management By W. W. Barton, Region 7. No. 625.</p>
75	June, 1960	<p>Forest Mgt. in Switzerland - The Check Method is Permanent (Part 2).</p> <p>Composite tree status codes for CFI Plot Work.</p> <p>There are many combinations of Tree Status Classes.</p> <p><u>STATISTICAL PROCEDURE LEAFLET #7</u></p>
76	July, 1960	<p>New Ideas.</p> <p>Cull Factors for Direct Field Use on Pulpwood and Sawlog trees.</p> <p>A 20-year Record of the Growth &amp; Development of Indiana Woodlands - by Daniel Den Uyl, Purdue University.</p> <p>CHART - SCALING DEFECT PERCENTAGES FOR DIRECT FIELD USE ON PULPWOOD AND SAWLOG TREES.</p>
77	August, 1960	<p>As Young as Your Faith, by Charles Kettering.</p> <p>Region 9's SITE INDEX CURVES Are Convenient Field Tools.</p> <p>SITE INDEX CURVES sheet.</p>

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
77(Cont'd)	August, 1960	Technical Note 463, Lake States and other Tech. Note numbers.  <u>BARTON'S STATISTICAL PROCEDURE LEAFLET #8</u>
78	September, 1960	The Foundation Beneath the Foundation - Part I, Tree Records are Only as Good as the Techniques Used in Making Them. (first 3 pages).
79	October, 1960	Accuracy and the Basic Data for Forest Management.  Tree Records are Only as Good as the Techniques Used in Making Them - Part II - (Pages 4, 5, 6 and 7).  <u>BARTON'S STATISTICAL PROCEDURE LEAFLET #9</u>
80	November, 1960	Beetles, Bugs or Bacilli.  A Few Facts on the Spread of Dutch Elm Disease in SE Wisconsin. (A By-Product of CFI Records on 108 Fixed Radius Plots.)  Graphic Listing of Dead and Dying Elm Trees in Southeastern Wisconsin Woodlots Infected with the Dutch Elm Disease.  Fifth World Forestry Congress paper by Stott & Semmens.  <u>BARTON'S STATISTICAL PROCEDURE LEAFLET #10</u>
81	December, 1960	For the Little Sprouts at Christmas Time.  News items about different companies.
82	January, 1961	Poor Richard's Almanac - Preface for 1747.  Management Potential - A Silvical Classification for Trees - by George Semmens.
83	February, 1961	Tranquility - by T. C. Fearnow, Region 7.  Proposal for Simplified CFI.

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83(Cont'd)	February, 1961	Classical breakdowns of forest combined and abbreviated.  Tree condition classification intensified.  Amount of measured sample reduced.  Some results of use of MANAGEMENT POTENTIAL CODES.
84	March, 1961	Log and Tree Grading for Wood Quality - Part I.  Sheets attached, Hardwood Log Grades for Standard Lumber, and Hardwood Log Specifications for Ties and Timbers.
85	April, 1961	Log and Tree Grading for Wood Quality - Part II.  NUMERICAL VALUES QUALIFYING LOG GRADING FOR WOOD QUALITY - FACTORY LOGS AND TIE AND TIMBER GRADES.
86	May, 1961	Log and Tree Grading for Wood Quality - Part III.  Log Grading Short Cuts - Degrade Bands - No. 1 Logs 13"-15" in Top DIB.  Log Grading Short Cuts - Degrade Bands - No. 1 Logs 16"-19" in Top DIB.
87	June, 1961	Forest Valuation Inventories are Overdue.  Transfers of George Semmens and Dick Smith.  Log and Tree Grading for Wood Quality - Part IV.  Table - Percent of Net Scribner Log Scale by DBH Class - Sugar Maple. (Log Grades 1, 2 and 3.)  Table - Log Grade Recovery by Tree Quality Grade in Percent of Scribner Net Log Scale Volume - Sugar Maple.

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
87(Cont'd)	June, 1961	Measuring Pole & Adjustable Caliper for Determining Usable Length and Top Diameter of Pulpwood & Sawlog Trees.
88	July, 1961	More About Forest Valuation Inventories.  General & Basic Rules for Field Error Correction in Tree Detail Card.  Allowable, Optional & Correctable Field Errors in CFI - The Tree Detail Card.  General Rules for Field Error Correction - The Plot Master Card.  Damaging Insects Are Found in All Forest Types - North Central Reg.  Brief Outline of Mgt. Potential Codes for CFI Inventories - condensed from n/1 #82.
89	August, 1961	A Final Word on Forest Valuation Inventories.  The Plot Tab.  PLOT TAB DESIGN.
90	September, 1961	In An Ash Copse - 1683  Co-Workers in Successful Ventures Must Cooperate.  St. Swithin Plays Havoc with CFI.  Stott's Idiot Stick.  Diameter Tape Techniques Too Are Sometimes Resisted and Condemned.  A Plastic Hammer for Sounding Small Trees.  Kimberly-Clark is Remeasuring.  Fine Xmas Present for Copper Range Company.  Cleveland-Cliffs Iron Company CFI in Progress.  Owens-Illinois has 400 Permanent Plots to Remeasure.



<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
90(Cont'd)	September, 1961	<p>St. Regis<sup>o</sup> Rhinelander Paper Co. Remeasures.  4 year Remeasurement in Koochiching County.  5 year Remeasurement at Minnesota &amp; Ontario Paper Co.  And Measuring Pole is Easy to Handle, Too.  Paint Numbering Trees Gaining Another New Convert.  A New Paint Numbering Technique Tried Out by State and Private Forestry.</p>
91	October, 1961	<p>LIFE IS AN ALMOST CONTINUOUS EXPERIENCE OF HAVING TO DRAW CONCLUSIONS FROM INSUFFICIENT EVIDENCE.  Resistance to Tree Quality Grading.  Log Grade Recovery by Tree Quality Grade in Percent of Scribner Net Log Scale Volume - YELLOW BIRCH.  Log Grade Recovery, etc. BASSWOOD.  Major Forest Diseases of Living Trees - North Central Region.</p>
92	November, 1961	<p>The CFI Field and Machine Planning Season is Here Again.  More About "Nel-Script", the Tree Numbering Tube Paint.  Nel-Script Prices.  Drawing of Major Features of Nel-Script.</p>
93	December, 1961	<p>Little Lessons in Resource Rehabilitation.  Gingseng Jensen Digs for Christmas Money.  Polyethylene Sheets Proving Their Worth in CFI Field Work.  Picture of Sheet.</p>

<u>Number</u>	<u>Month-Year</u>	<u>Title</u>
94	January, 1962	<p>A Thought for the New Year.</p> <p>A System for Recording Reproduction Data in C.F.I. by Bill Barton, Region 7.</p> <p>Quarterly Program for CFI Data Processing and Planning for Stott and Smith.</p>
95	February, 1962	<p>In the interest of more efficient data processing for C.F.I. (By McDonald of R-8).</p> <p>Summary Discussion of Data Processing.</p> <p>Paint Tubes Need Not Break Or Crack in Your Pack.</p>
96	March, 1962	<p>WATCH YOUR WOODS. Koochiching County, Minnesota Sifts CFI Facts.</p> <p>A Prodigious and Masterful Accomplishment (about F. Troskey of Corona, California).</p>
97	April, 1962	<p>Plato's Observation on Income Tax.</p> <p>New Large Computers Require New CFI Formulas for Volume, Basal Area and DBH Class.</p> <p>Formula for Computing Cord Volume of Pulpwood Trees - Exhibit I.</p> <p>Formula for Computing the Basal Area of Trees - Exhibit II.</p> <p>Volume Comparison Cordwood Volume Table and Formula - Exhibit IV.</p> <p>Deviations of Formula Volumes in Cords From Bulletin 1104 - Exhibit IV.</p>
98	May, 1962	<p>Voluntary Cooperation.</p> <p>A New Scribner Board Foot Formula for Calculating Individual Tree Volumes.</p> <p>Formula for Computing the Scribner Volume of Sawlog Trees - Exhibit VI.</p>

<u>Number</u>	<u>Month-Year</u>	<u>Title</u>
98(Cont'd)	May, 1962	Volume Comparison, Scribner Bd. Ft. Log Scale and Formula, Exhibit VII.  Deviations of Formula Volumes from Bulletin 1104, Scribner Bd. Ft. Log Scale, Exhibit VIII.  Net Scribner Localized Volume Tables. (Comparison of Original CFI Volumes with New Formula Volumes for 2110 Sawlog Trees).
99	June, 1962	C.F.I. Guides a Management Plan...  Minnesota and Ontario Paper Company.  CFI Work Summer Schedule for 1962.
100	July, 1962	Excerpt from Hawkin's letter (Bureau of Indian Affairs, Mpls.).  Accomplishments of Remeasurements in 1961 and 1962.  Owens-Illinois; Kimberly-Clark; Koochiching County.
101	August, 1962	An Old Chestnut From Northern Wisconsin.  A CFI Field Work Problem This Year in Region 9.  Tube Paint Has Wintered Well - Smaller Numbers Advocated.  A Note on the Accumulation of Oil in the Paint Tubes.  Sectional Measuring Pole - Sketch.  Detachable "U" Bar Caliper - Sketch.
102	September, 1962	Continuous Plantation Inventory - by William Warren Barton, of Region 7.  (Booklet and covering Newsletter)

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
103	October, 1962	Poem "If Trees Could Speak".  Binders, Headers, and Separators for CFI Data Tabulations.  Set of 8 Sheets made up by George Banzhaf & Company for Cleveland-Cliffs Iron Co.
104	November, 1962	Writeup of new uses for CFI - by Cal Stott.  Lee Winner Reviews Basic Features of CFI for West Coast Indian Lands.  Separate sheet - Volumes per tree computed with New Cordwood Formula, and compared with other source data.
105	December, 1962	Christmas, by Dickens.  Sample CFI Listings, by Stott.  The Plot Total Listing in CFI - Lists 1 through 62, and Plot Total Listing Sample Sheets.
106	January, 1963	New Year 1963 - by Dickens.  Importance of Classifying the Health Potential of Forest Trees.  One Year of DBH Growth in Inches.  The Time it Took to Tally.  Memorandum on CFI Accomplishments, by Gene Meyer.  Eric Bourdo's write-up of Upper Peninsula Program on January 25, 1963 at Escanaba, Michigan.  CFI Work Schedule for January, February, March, 1963 for Stott and Smith.
107	February, 1963	Address by John W. Lederle, Pres. U. of Mass.  Components of Forest Growth by Individual Trees.

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107(Cont'd)	February, 1963	A Few Words on Intolerable Trees.  Tabulated Examples of Growth Components (5 tables - Codes Common to Listing of Purdue Project Data, etc.)
108	March, 1963	The Principal Purpose of Inventory. Tree Vigor Grading Rules Commonly Used In CFI Cases, North Central Region, #9 Sheet, FLASH VIGOR GRADE - GROWTH PER ACRE PER YEAR: VIGOR-GROWTH CORRELATIONS IN PERCENT, Scribner Bd. Ft. & No. of Trees; Scribner Bd Ft. Vigor-Growth Correlations Are Quite Consistent in 2-year Intervals, (A 14" DBH Class Sample); Basal Area Vigor-Growth Correlations Are Consistent in 2-year Intervals (A 16" DBH Class Sample.  Sheet - TREE VIGOR GRADING RULES COMMONLY USED WITH CFI.
109	April, 1963	The Forest in Three Dimensions.  <u>International Volume Table.</u>  Formula for Computing International Volume of Sawlog Trees. (By Thomas A. Jones, Neenah, Wis.)  Bd. Ft. Volumes Computed Using Formula Derived from Table 2 in Tech. Bulletin 1104.  Bd. Ft. Deviations of Formula Volumes from Table 2 in Tech. Bulletin 1104.  Percent Deviations of Formula Volumes from Table 2 in Tech. Bulletin 1104.  Bd. Ft. Volumes Computed Using New International Formula Derived from Table 2 in Tech. Bulletin 1104, (Lake States Station) by Thomas Jones.
110	May, 1963	Government Service. (Through State and Private Forestry Cooperation).  Sequential Steps in Inventory Control Planning.  Work Schedule for Stott, Smith and Hool,

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110(Cont'd)	May, 1963	May through October, 1963. <u>Scribner Volume Table.</u>
111	June, 1963	Computers in Forest Management, by Otis Hall, Purdue U.
112	July, 1963	Things Look Very Differently in the Forest From What They Do in Books, by Henrich Cotta, the Elder.  Weighted Tree Vigor Grading Rules for CFI.  Numerical Range of Values for Weighted Tree Vigor Grading.  TABLES ON GRADING TREE VIGOR BY WEIGHTED RULES.  Vigor and Growth Correlations Justify and Encourage Weighted Vigor Grading.  GRAPH - WEIGHTED VIGOR GROWTH CORRELATIONS IN PERCENT OF TREES, BASAL AREA & NET SCRIBNER BOARD FEET.
113	August, 1963	A Definition of 1811 - A BETTER WAY TO USE PORT-A-PUNCH CARDS.  Chief Changes in PAP Card Use and Design.  Advantages of changes in PAP Card Design and Use.  General Comments on PAP Card Use.  An improved Template for Port-A-Punch Boards.  3 illustrations of PAP cards.
114	September, 1963	New Yorker Article by Christopher Rand; Let the Forest Decide; Not the Mathe- matician - Oliver Diller's article "CFI Woodlots - Opportunities for Integrating Research, Education and Action Programs".

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115	October, 1963	Using the Left-Handed Diameter Tape.  Tree Growth Measurements and that Cantankerous Diameter Tape.  Illustrated Sheet - Suggested Tube Paint Techniques in Region 9.
116	November, 1963	Excerpt from Lorna Doone.  The Rod Gauge Versus the U-Gauge for Measuring Top Diameters.  The Rod Gauge is Inadequate. (Illustration).  The U-Gauge Caliper Works Fine. (Illustration).  Tree Quality Grading and Butt Log Diameters.  Determining the Top Diameter Inside Bark for the Log to be Graded.  Hardwood Sawlog Taper Guides for Quality 1 & 2 Butt Logs Adjustable Hardwood Sawlog Caliper for Quality 1 and 2 Butt Logs. (Illustration).
117	December, 1963	A Christmas Gift.  CFI News, 1963: Mosinee Paper Mills Co. Completes 556 CFI Plots.  Drawing of Circular CFI Plantation Plot.  Some Old Timers Are Still Using Fifth-Acre Plots.  Remeasurement Completed by Mead Corp.  Business Data Processing Center Sends Agents to Woods.  Safety Item - Use More Care in 1964.  U.S. Bureau of Indian Affairs Remeasures 575 Plots.  The Lac du Flambeau Reservation.

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
117(Cont'd)	December, 1963	<p>Special Credit.</p> <p>Menominee Enterprises Inc. Converts to Unstratified CFI.</p> <p>A Florida Letter Warms up the Northern Lake States.</p> <p>Jim Hool Returns to Purdue.</p> <p>Three Crews Complete Kimberly-Clark CFI Remeasurements.</p> <p>Ripco Computing Gets Underway on Rem-Rand 80.</p> <p>Menominee Enterprises Error Checks 33,000 PAP Cards in 70 Minutes.</p>
118	January, 1964	<p>The New Year by Dickens.</p> <p>Statistical Check Computer Program for IBM 1620, by Jim Hool.</p> <p>Operating Instructions for the 1620 Statistical Check Routine.</p> <p>Attached Sheets - Statistical Check Program.</p> <p>PARAMETER CARD - Statistical Check Fortran Source-Deck Listing - Flow Diagram for 1620 Statistical Check Program, by Jim Hool.</p> <p>Statistical Procedure Leaflet #9 by Bill Barton (originally sent out as attachment to Newsletter #79, Oct. 1960).</p>
119	February, 1964	<p>Learning by Doing, Sophocles.</p> <p>Cruise Alone and Like It.</p> <p>CFI With a One-Man Crew is a Worthwhile Economy.</p> <p>Broad Time Records on 75 CFI Plots Remeasured by One-Man Crew.</p> <p>The Time it Takes.</p>



<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
119(Cont'd)	February, 1964	<p>The Narrow Snap Back Diameter Tape Versus the Standard Tape. (Illustrated).</p> <p>The Standard, Wide Diameter Tape Works Fine. (Illustrated).</p> <p>The IBM Port-A-Punch Stylus.</p> <p>Sheet - Factors Influencing Time Study for Solo CFI in Stone's Woods; Equipment Used to Remeasure Stone's Woods Plots with a One-Man Crew.</p> <p>January through June Schedule for CFI, Smith and Stott.</p>
120	March, 1964	<p>Quotation from Wm. Shakespeare.</p> <p>Detailed In-Plot Time Records for 49 out of 75 Remeasured Plots in Stone's Woods.</p> <p>Sawlog Trees Take the Most In-Plot Time and Skill in Solo CFI.</p> <p>Sheet - CFI Cruising Time Within Plot Only - Minutes Per Tree Handled - Basis 49 Plots and 1128 Trees.</p> <p>Segregation of Time Records within Plot By Product Group.</p> <p>Sheet - Factors Influencing Time Study for Solo CFI in Stone's Woods - Equipment Used to Remeasure Stone's Woods Plot with One-Man Crew.</p> <p>Sheet from University of Massachusetts Cooperative Extension of Announcement of Training Course on CFI. (Region 7 Cooperating).</p>
121	April, 1964	<p>It Takes Time to Plan for Electronic Data Processing.</p> <p>Brief Explanations of Broad Block Diagrams.</p> <p>Area Break Table Production.</p> <p>Stock and Stand Tables Needed and Production.</p> <p>Costs and Programming.</p>

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
121(Cont'd)	April, 1964	Estimated Time Schedule.
122	May, 1964	Region 7 S&PF Prepares a Compendium on Volume Tables for CFI.  Volume Table Logic by Bill Barton, Forester, Region 7.  Application blank & brochure re-Mass. Univ.
123	June, 1964	Forest School at Purdue Computes Look-Up Volume Table for S&PF. Booklet (Scribner).
124	July, 1964	Correspondence Concerning CFI from Prof. Dr. A. Kurth, Switzerland.  Overprint cards for sale by Menominee Enterprises, Inc.
125	August, 1964	Brief Resume of CFI Concept and its History in Lake and Central States.  Measuring Tall Timber Lengths - Woven Metallic Reel Tape vs. The 60-foot Steel Drag Tape.  Measuring Tall Timber Heights Using 60-foot Steel Drag Tape. (Illustration).
126	September, 1964	Overall Significance of Permanent Plot Data by JOHN HUBBARD, M&O.  Forest Management in Miniature a Success at Mando.
127	October, 1964	Of Electronic Data Processing Excerpt from "Legacy of Hiroshima" by E. Teller with Allen Brown.  Man Measures Everything, by Stott.  Three Charts - "Daily Diameter Tape Records - Steinke's Elm, Wuerch's Elm - Stott's Apple".

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
128	November, 1964	<p>Jim Johnson on the Job.</p> <p>Another Purdue Project Set Under Way in October.</p> <p>Clear Cut Northern Hardwoods.</p> <p>The Growth of 9 Trees over a 27-year Period.</p> <p>Menominee Enterprises, Inc.</p> <p>Copper Range Company.</p> <p>Owens-Illinois Glass.</p> <p>Kimberly-Clark Corp.</p> <p>Ford Forestry Foundation.</p> <p>The Indiana State Forest Inventory.</p> <p>Plots Per Day Established.</p> <p>Winter Months are For Programming in North County.</p> <p>Owens-Illinois in the Deep South.</p>
129	December, 1964	<p>Compilation of International Log Scale Look-Up Volume Table in Book Form.</p>
130	January, 1965	<p>Announcing Short Course in CFI Remeasurements After 27 Years - with photographs - 3 pages.</p>
131	February, 1965	<p>Lest Foresters Forget - by Cal Stott</p> <p><u>CORDWOOD LOOK-UP VOLUME TABLE FOR CFI.</u></p>
132	March, 1965	<p>The DMSO Mystery - Sat. Evening Post.</p> <p>SITE INDEX CURVES Booklet prepared by Region 7.</p>

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
133	April, 1965	<p>Selective Cutting Results After 27 Years.</p> <p>Ford Fund Forest - A Volume Picture of Plots 41, 42, 43. Percent of Total Basal Area by Product.</p> <p>PART I - CFI Measures the Productive Power of Northern Hardwood Forest After Heavy Selective Cutting.</p>
134	May, 1965	<p>Chart - Ford Fund Forest - A Volume Picture of Plots 131-135. Percent of Total Basal Area by Product.</p> <p>Part II - CFI Compares and Contrasts the Growth of the Northern Hardwood Forest After Light Selective Cutting.</p>
135	June, 1965	<p>Ford Fund Forest Value Pictures of Plots 41, 42, 43, 131 thru 135 of Total <u>Stumpage</u> Value. CFI Helps in Measurement of Forest Capital Appreciation.</p> <p>Part III - Table I, Ford Fund Forest, Log Grade Recovery after Heavy &amp; Light Selective Cutting. Analysis of Tabular Results Showing Extent of Log Grade Improvement.</p> <p>Table II, Ford Fund Forest, Rate of Capital Appreciation after Heavy &amp; Light Selective cutting. Rate of Capital Appreciation with Inflated Stumpage Prices Unadjusted 22-Year and 27-Year Growth Periods.</p> <p>Table - Ford Fund Forest Stumpage Prices used to calculate value growth in all sample plots.</p>
136	July, 1965	<p>The Tree Detail Error.</p> <p>Separate Sheets, Figures 1 thru 6.</p> <p>Field Schedule thru November, '65.</p>

<u>Number</u>	<u>Month - Year</u>	<u>Title</u>
137	August, 1965	<p>How To Use New Brady Supropaque Correction Seals.</p> <p>Chart - Illustrating Removal and Application of BRADY Key Punch Correction Seals.</p> <p>Proceedings of CFI School at L'Anse, Michigan will be delayed.</p>
138	September, 1965	<p>Moderation in Silvicultural Management of the Forest.</p> <p>Chart, illustrating the Analagous Treatment of CFI Plots and Adjacent Areas.</p> <p>Organization Chart of Division of S&amp;PF.</p>
139	October, 1965	<p>Short Course at Purdue on Computer Programming in Forestry - by R. Smith.</p> <p>Detailed Estimate of Veneer Content of Standing Trees - by James Meteer (Stott).</p> <p>Table 1 - Detailed distribution of Gross International Volumes in Sawlog Trees.</p> <p>Table 2 - Accumulated distribution of Gross International Volumes in Sawlog Trees.</p>
140	November, 1965	<p>News Items - Owens-Illinois, Mead Corp., Cane Poles, Northwest Paper Company, Indiana State Forest - Bureau of Indiana Affairs - Muskingum Watershed Cons. Gogebic County - Ford Forestry Center.</p>
141	December, 1965	<p>Young Man with a Tape (Jerry Branam).</p> <p>Excellent D-Tape Work on 91 Trees (Table).</p> <p>Stott's professional plans for first retirement year.</p>